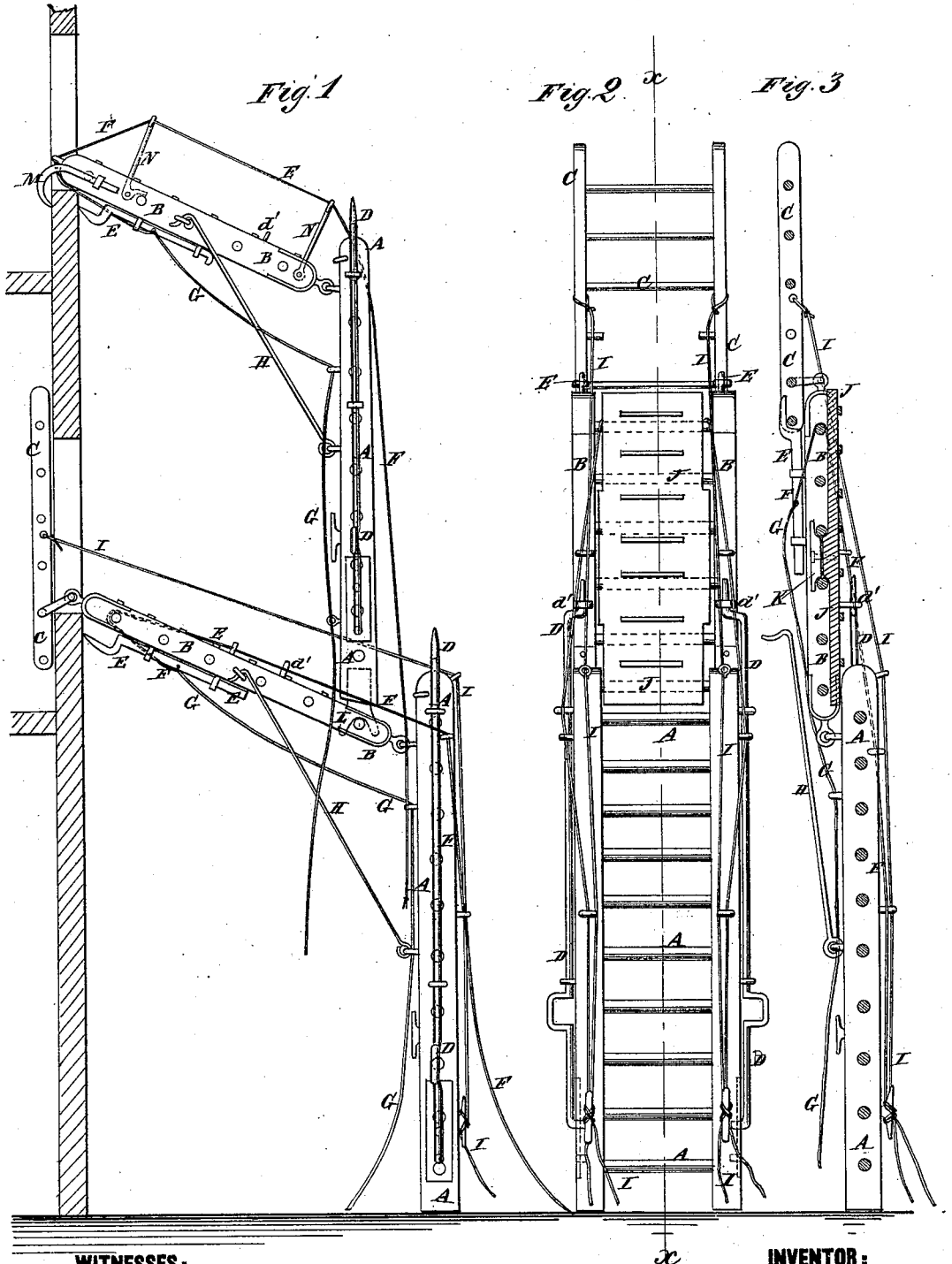
W. C. PHILLIPS.

Fire-Escape.

No. 202,460. Patented April 16, 1878.



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WILLIAM C. PHILLIPS, OF NORWALK, CONNECTICUT, ASSIGNOR TO HIMSELF, CHARLES M. TUCKER, AND CHARLES E. REMSEN, OF SAME PLACE.

IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **202,460**, dated April 16, 1878; application filed October 6, 1877.

To all whom it may concern:

Be it known that I, WILLIAM CHESTER PHILLIPS, of Norwalk, in the county of Fairfield and State of Connecticut, have invented a new and useful Improvement in Stair Fire-Escapes, of which the following is a specification:

Figure 1 is a side view of my improved device arranged for use; Fig. 2, a front view of the lower part of the same arranged as a straight ladder; and Fig. 3, a longitudinal section of the same, taken through the line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved portable device to enable people to be rescued from burning buildings, and which shall be so constructed that it may be conveniently handled.

The invention consists in the combination, with each other, of the three hinged sections, the two sets of bolts, the three sets of cords, and the hook-braces, to adapt the device for use, as set forth; and in the combination, with each other, of the two hinged sections, the two sets of bolts, the two sets of cords, the hook-braces, the forked feet, the hooks, and the hinged arms, to adapt the device for use in connection with a lower supporting part, as hereinafter described and set forth.

The fire-escape is made in one, two, or more parts. The lower part is made in three sections, A B C, each of which is formed by attaching rounds to side bars in the manner of an ordinary ladder.

The lower ends of the side bars of the section B are hinged to the inner sides of the side bars of the base-section A, near their upper ends, by eyes or other convenient hinges, and the upper ends of the side bars of the section B are connected with the side bars of the smaller upper section C, near their lower ends, by eyes and links or other convenient hinges.

D are long bolts, which slide in keepers attached to the outer sides of the side bars of the section A. The upper ends of the bolts D are made with an offset, to bring them into proper position to enter eyes or keepers *d'* attached to the side bars of the middle section B, to lock the sections A B in place when arranged as a straight ladder, as shown in Figs. 2 and 3. The lower parts of the bolts D have handles formed upon them, and their lower ends are bent inward to enter holes in the sides of the side bars of the section A, to lock the said bolts in either position.

E are bolts, which slide in keepers attached to the rear edges of the upper parts of the side bars of the section B. The upper ends of the bolts E are made with an offset, to pass around the lower round of the section C and lock the sections B C in place when arranged as a straight ladder. The upper ends of the bolts E are made pointed, to take hold of a window-sill or wall when pressed against it, and prevent the section B from slipping. To each of the bolts E are attached the ends of two cords, F G.

The cords F pass around the upper round of the section B, and pass through guide-eyes attached to the forward edges of the side bars of the sections B A, so that the said bolts E may be drawn forward by pulling upon the said cords F.

The cords G pass through guide-eyes attached to the rear edges of the side bars of the sections B A, so that by pulling upon the said cords G the bolts E may be drawn back.

In using the part A B C it is arranged as a straight ladder, as shown in Figs. 2 and 3, is raised against the building, and the end of section C is thrust through a window. The lower end of the section A is then moved inward until said section is in a vertical position, or nearly so, and the brace-hooks H, pivoted to the side bars of the section A, are hooked into eyes attached to the side bars of the section B, locking said sections A B in place. The cords I, attached to the side bars of the section C, and passing through guide-eyes attached to the upper ends and forward edges of the side bars of the section A, are drawn upon, which brings the section C into a vertical position against the inner side of the window-frame, as shown in Fig. 1, and the cords F are drawn upon, drawing the bolts E against the window-sill. The cords I F are then secured to belaying-cleats or other fastenings attached to the side bars of the section A, and the device is ready for use for the firemen to

enter the room, or for those within the room to escape.

The middle part of one or more of the rounds of the section C may be cut away, as shown in Figs. 2 and 3, to enable persons to pass in and out of the window more readily. A board, J, provided with cross-cleats upon its upper side, may be placed upon the section B, and secured in place by a button, K, pivoted to it, and turned across the rounds of the said section B, as shown in Fig. 3, or other convenient fastenings, so that persons may pass along the said section more readily.

When access is to be had to the story above—that with which the lower part A B C is connected—the upper part is used, which is made similar to the two lower sections of the lower part, except that the lower ends of the side bars of the lower section A have forked feet L attached to them, to rest upon the lower round of the section B. The upper ends of the side bars of the upper section B have hooks M attached to them to hook upon the window-sill, and the cords F pass through eyes in the arms N before passing through the guide-eyes of the side bars of the section A. The arms N are hinged, so that they may drop down out of the way when the cords F are slack, and may be raised by tightening the said cords.

Any desired number of parts may be used, according to the height of the building, the section B of each upper part being made shorter than the corresponding section of the part below it. Each upper part is raised and arranged from the part below it.

With this construction the device can be raised and arranged very quickly, and forms a convenient means for obtaining access to or escaping from the upper stories of a burning building.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with each other, of the hinged sections A B C, the bolts D E, the cords F G I, and the hook-braces H, substantially as herein shown and described, to adapt it for use, as set forth.

2. The combination, with each other, of the hinged sections A B, the bolts D E, the cords F G, the hook-braces H, the forked feet L, the hooks M, and the hinged arms N, substantially as herein shown and described, to adapt the device for use in connection with a lower supporting part, as set forth.

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Witnesses:
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